DoD Fuze Integrated Product Team

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DoD Fuze IPT

AGENDA

- Objectives
- History
- Definitions
- Modus Operandi
- Where are We Now
- Summary

DoD Fuze IPT

Objectives

- Identify issues affecting the current fuze industrial and technology base
- Determine what is required for a DoD fuze industrial and technology base
- Develop a strategy for re-shaping the fuze base to meet the requirements
- Develop and implement a plan of action and milestones for implementing the strategy.

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History

- DoD Fuze Industry Workshop, March 7th-9th, 1990.
- DoD Fuze S&T Review, August 19th & 20th, 1997.
- IDA “Missile, Bomb, and Projectile Fuze Subtier Assessment” Study, 1997 thru 1999.
- Tri- Service Government/Industry Fuze Workshop, May 8th-10th, 2001.
- NDIA Symposia

DoD Fuze IPT

History

- Director, Strategic & Tactical Systems, established the DoD Fuze IPT on June 28, 2001.

- First meeting - - July 24, 2001 - agreed to conduct a problem solving workshop.

- Workshop - - three-day effort at DSMC in Ft. Belvoir, VA, October 30-November 1, 2001
    - Established Baseline Definitions
    - Revisited Issues
    - Developed initial Strategic Plan

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History

- Second meeting - - December 18, 2001 – refined definitions & started to refine the Strategic Plan.

- Third meeting - - March 12-13, 2002 – continued to refine Strategic Plan.

- Next meeting - - May 29-30, 2002.

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Definitions

Fuzing System (Source: NATO STANAG 4187)

A system designed to:

a. Provide as a primary role the safety and arming functions necessary to preclude munition arming before the desired position or time.

b. Sense a target or respond to one or more prescribed conditions, such as elapsed time, pressure, or command.

c. Initiate a train of fire or detonation in a munition.

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Definitions

Fuze Technology Base

The Technology Base is defined as those entities, public and private, domestic and international, involved in basic research, applied research, and advanced technology development for fuzing systems, components and associated equipment to include setters.

Fuze Industrial Base

The Industrial base is defined as those entities, public and private, domestic and international, that are actively involved in the design, development, qualification and/or production of fuze systems, and associated equipment to include setters. Included in the Fuze Industrial Base are those entities who supply components essential to the functioning of the fuze systems such as Safety and Arming devices, explosives, power supplies, electronics, sensors, fuze initiators, cables and lanyards.

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Modus Operandi:

- Refine and Implement a DoD Strategic Plan for the Fuze Tech & Industrial Base.

- Develop a Fuze Technology Road Map.

- Work with Industry as required for input, sanity check, help.…-- Industry POC for NDIA is Al Calabrese.

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DSMC: Strategic Plan for the Fuze Technology and Industrial Base

- Fuze Industrial Base Strategic Plan Objectives
  - Strong U.S. Base
  - Greater Government Role/Involvement
  - Multiple Sourcing
  - Smart Contracting
  - Contractor Financial Stability
  - Contractor Expertise
  - Manufacturing Capability
- Fuze Technology Base Strategic Plan Objectives
  - Greater Government Involvement
  - Collaborations/Jointness
  - Funding/Investment
  - Technologies

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DSMC: Strategic Plan - Fuze Industrial Base - Item #1

Goal: **Strong U.S. Base**

Objective: Base where US policy on exports and imports of munitions helps the domestic suppliers stay in business.
Buy domestically as priority.
Sufficient fiscal, infrastructure and human resources.
Products delivered on time, within cost and with acceptable reliability.
Multiple US sources for adequate supply of critical components.
Viable lab system.
Adequate Procurement Quantities.
Entering the fuze production base is seen as a smart business decision for contractors.

Action: Get the word out on Section 806, National Defense Authorization Act requirements.
Reminder Memo (Aldridge). DAU and DSMC Training.
806 Implementation for fuze systems and critical components.
Capabilities analysis by munition/families. Provide sample write-ups. Certification addressed.
Smarter Contracting (Bundling etc.).
Success: Increased bundling contracts, multi-year and Joint Service Contract actions.
Establish DOD Fuze Plan and use it as a Marketing tool aimed at PEOs.
Conduct Surveys of PM's. Show relationship/leveraging among Services. Address Replenishment/Lifecycle. Establishing and implementing a comprehensive plan.
Brief Industry (Systems and Fuze Primes).
Brief Munitions Industrial Base Task Force (MIBTF).
Success: Brief MIBTF.

CURRENT SITUATION: The current US fuze industrial base is comprised of a small group of companies. These companies represent a mix of primarily production houses and a few that can also design and develop fuzes and ESAs. Financially, a few are relatively sound, but most are weak and rely on continuing production contracts to remain in business. Most have a small engineering department, that is not capable of resolving all production or development problems.

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Strategic Plan - Fuze Industrial Base - Item #1 (revised)

Goal: **Advance and Maintain a Healthy U.S. Contractor Base**

Objective:

- Ensure that US policy on exports and imports of munitions does not threaten domestic suppliers.
- Enhance and sustain National capabilities for development and production of fuzing systems.
- Domestic fuze suppliers have sufficient fiscal, infrastructure and human resources to meet DoD requirements.
- Establish and sustain multiple US sources for adequate supply of critical components (this may also include teaming with foreign sources to obtain technology or production capabilities).
- Enhance and sustain Government lab system capability to respond and support SDD and production (refer to Strategic Plan Goal #4 – Smart Acquisition).
- Ensure Adequate Procurement Quantities.

Actions:

- Obtain industry input as to effect of existing munitions export/import policies on the domestic base.
- Have industry propose an effective policy.
- To ensure that all DoD acquisitions comply with Section 806 requirements (1999 National Defense Authorization Act).
    - OSD munitions (Tony Kress) will draft a memo for signature by USD(AT&L) to the acquisition community reminding them of their legal requirements and providing them the procedures for Section 806 certification (Target Completion Date: 01 Mar 02).
    - OSD munitions (Tony Kress) will work with DAU to integrate Section 806 material into existing acquisition curricula. Implementation should take place within three months of date of memo.
- Army OSC will perform an abbreviated DoD 5000.60H Industrial Capabilities Assessment (ICA) for all fuzing system manufacturers within the purview of the Single Manager. Non-SMCA fuze system contractors will also be evaluated by TBD.

cont.

DoD Fuze IPT

Strategic Plan - Fuze Industrial Base - Item #1 (revised)

Goal: **Advance and Maintain a Healthy U.S. Contractor Base**

cont. Actions:

- Develop DOD Fuze Roadmap.
  - Create IPT Subgroup to develop DOD Fuze Roadmap; develop draft charter and action plan.
  - Facilitate Government/Industry business planning and identify acquisition issues.
    - Conduct surveys of PM's for technology needs.
    - Show relationship leveraging among Services.
    - Address Replenishment/Lifecycle.
    - Establish and implement a comprehensive plan.
    - Use Roadmap to identify technology voids to justify increased investment (Government, Contractor IR&D).
    - Identify opportunities for joint programs and reduce duplication of efforts.
- Implement Smarter Acquisition practices as addressed in Goal 4.
- SMCA conduct annual fuze summit among all services to coordinate planned procurement.
  - Services provide POC to SMCA (Melanie) for identifying appropriate participants in annual fuze summit.
- Identify and establish a database for single source/critical components and current suppliers. Determine the minimum and maximum production rates for each item. Develop a list of the fuze systems that each of the components is associated with. Establish if any of the components are critical (and why).
  - Each Service compile a list of single source components (R&D and production) to be discussed at the next meeting (Dave for Navy, Phil for Army, Tom USAF).
  - Evaluate compiled list at next meeting.
  - Draft form letter (Melanie) for release to the contractors requesting : They evaluate our list of single/critical components and determine if any items on list are a problem, identify any additional components and/or materials that are of issue in obtaining, and provide production rates (min and max).
  - Determine actions necessary to establish additional sources.

CURRENT SITUATION: The current US fuze industrial base is unhealthy. The base has declined from approximately 36 to fewer than 10 end item suppliers since 1987. The remaining companies represent a mix of primarily production houses and a few that can also design and develop fuzing systems. Financially, a few are relatively sound, but most are weak and rely on continuing production contracts to remain in business. Most have small engineering departments that are not capable of resolving all production or development problems. The current situation is detrimental to National Security and Readiness.

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Develop a Fuze Technology Road Map

- Create IPT Subgroup to develop DOD Fuze Roadmap - lead by Mr. Scott Teel.
  - Develop draft charter and action plan.
  - Facilitate Government/Industry business planning and identify acquisition issues.
    - Conduct surveys of PM's for technology needs.
    - Show relationship leveraging among Services.
    - Address Replenishment/Lifecycle.
    - Establish and implement a comprehensive plan.
  - Use Roadmap to identify technology voids to justify increased investment (Government, Contractor IR&D).
  - Identify opportunities for joint programs and reduce duplication of efforts.

DoD Fuze IPT

Where are We Now

- Drafted two letters to Industry partners.
  - 8/1/2001 letter - covering the establishment of the DoD Fuze IPT.
  - 11/29/2001 letter - brief update of the Department's initiative for improving the fuze technology and industrial base.
- Finalized Baseline Definitions.
- Updated Goal #1 of the Fuze Industrial Base - Strategic Plan.
- Established link to industry through NDIA – Mr. Calabrese.
- Established connectivity with Munition Power Sources IPT (Army Lead).
- Obtained Industry input on effects of existing munitions export/import policies on the domestic base.
- Released new (reminder) Section 806 memo, signed by USD(AT&L) on April 5, 2002.
- Created an IPT subgroup for developing a DoD Fuze Roadmap.

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Where are We Now

- Creating an Annual Fuze Summit for coordination of Services planned fuze procurements, date TBD.
- Establishing a database for single source/critical components - - draft letter to industry requesting their review/input on this database.
- Performing abbreviated DoD 5000.60H industrial base analyses of OSC fuze contractors currently in production and Industrial Preparedness Planned fuze producers.
    - April - August 2002, reports should be finalized by Fall 2002.
    - Analyses should identify whether current base has critical skills and processes, critical components, and capabilities to meet current and/or future fuze requirements.

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Summary

- Continue to work on the Strategic Plan and the Fuze Roadmap.
- Continue to work with Industry through POC.
- My Offer - - Meet with industry to discuss Fuze IPT work.

DoD Fuze IPT

Related Event

Capabilities-Based Munitions Requirements (CBMR) Process

The DoD-wide process governing responsibilities and actions of the DIA, OSD, the CINCs, the Joint staff, and the Services for generating consistent munitions procurement requirements. Documented in: DoD Instruction 3000.4, dated August 10, 2001

Future Event: DPG 04-09 requests the Department to develop a munitions requirement process that is capable of supporting the PPBS & current CINCs warfighting needs.

Why is this effort required?

- Depending on who's speaking - - Senior OSD leadership will hear up to three differing munitions requirements (CBMR #, procurement req't #, and CINC #). WHICH IS THE TRUE REQUIREMENT?
- The Department needs to speak with one voice.